

U.S. Patent Application Serial No. 09/734,496
Amendment dated July 1, 2011
Reply to Final Office Action of January 4, 2011
Atty Docket No.: 60136.0128USU2

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-21. (Canceled)

22-36. (Canceled)

37. (New) A method for monitoring, from a remote location comprising a monitor and control unit, operations of a head-end in an information distribution system, the method comprising:

providing a head-end for delivering programming guide and contents to remote set top terminals coupled to display devices for viewing the programming guide and contents;

providing a service manager at the head-end for monitoring parameters associated with transport streams for delivering the programming guide and contents to the remote set top terminals;

providing a session manager at the head-end for communicating with the set top terminals to control sessions with the set top terminals and manage usage and demands of the set top terminals;

providing a monitoring and control device remotely coupled to the head-end for receiving status from the service manager for parameters associated with transport streams for delivering the programming guide and contents to the remote set top terminals and for receiving status from the session manager for usage and demands of the set top terminals demands;

storing an identity, a type, a capability and a reporting level for a plurality of remote devices designated for responding to monitoring and control messages relating to the operation of the head-end from the monitoring and control device;

processing, at the monitoring and control device, the status received from the service manager and the status received from the session manager to generate a monitoring and control message relating to the operation of the head-end;

analyzing the generated monitoring and control message and the stored identity, type, capability and reporting level for the plurality of remote devices to identify a remote device designated to receive the generated monitoring and control message and to determine a type and format for the generated monitoring and control message to be provided to the identified remote device; and

providing a communication server for establishing communication between the plurality of remote devices and the monitoring and control device and for providing the generated monitoring and control message to the identified remote device according to the determined type and format.

38. (New) The method of claim 37 further comprising receiving at the monitoring and control device a response messages from the identified remote device.

39. (New) The method of claim 38, wherein the receiving at the monitoring and control device a response messages from the identified remote device further comprises receiving at the monitoring and control device a command for adjusting control of the operations of the head-end.

40. (New) The method of claim 37 further comprising:

receiving at the communication server a response message from the identified remote device;

forwarding the response message from the communication server to the monitor and control device;

forwarding the response message, received by the monitor and control device from the communication server, to a responsible entity at the head-end, and

adjusting a parameter of an operation performed by an element at the head-end in response to receiving the command via the response message from the identified remote devices.

41. (New) The method of claim 37 further comprising polling a plurality of head-ends for status relating to the operations of elements of the plurality of head-ends.

42. (New) The method of claim 37, wherein the generating the monitoring and control message relating to the operation of the head-end further comprises including status relating to encoding operations performed by an element of the head-end in the generated the monitoring and control message.

43. (New) The method of claim 37, wherein the generating the monitoring and control message relating to the operation of the head-end further comprises including status relating to one or more buffers used to store encoded data by an element at the head-end in the generated the monitoring and control message.

45. (New) The method of claim 37, wherein the generating the monitoring and control message relating to the operation of the head-end further comprises including status relating to multiplexing operations performed by an element at the head-end in the generated the monitoring and control message.

46. (New) The method of claim 37, wherein the generating the monitoring and control message relating to the operation of the head-end further comprises including status relating to a particular transport stream transmitted from the head-end by an element of the head-end in the generated the monitoring and control message.

47. (New) The method of claim 37, wherein the generating the monitoring and control message relating to the operation of the head-end further comprises including status relating to bit rates for a plurality of types of data being provided from the head-end by an element of the head-end in the generated the monitoring and control message.